

# **ALL-FLAG OFFICERS CONFERENCE**



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**12 MARCH 2002**



# Where Are We?

*In the last five  
years (FY97-02),  
mishaps cost the  
Navy \$3.84*

**BILLION** and  
**174 Sailors and Marines died in**  
**FY01**  
**1,024 LOCATIONS**  
**94 Sailors and Marines died this**  
**fiscal year\***

**Indirect costs?**

*\*As of 5 Mar 02*



# *Cost and Deaths*

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## *Navy and Marine Corps*

### **FY97-02\***

#### *Cost*

*In Millions*

- Shore/Ground ■ Afloat ■ PMV ■ Recreation ■ Aviation

**Aviation:**  
**\$3.137B**

**Recreation**  
: \$61M

**PMV:** [REDACTED]

**\$133**

**M** Afloa  
t:

**\$368**      **Shore/Ground/Op MV:**  
**M**            **\$144M**

**Total:** **\$3.84B**

#### *Deaths*

- Shore/Ground ■ Afloat ■ Traffic ■ Recreation ■ Aviation

**Traffic:** **619**

**Afloat:**  
**19**

**Shore/**  
**Ground:**  
**133**

**Aviation:** **151**      **Recreatio**  
n: **142**

**Total Deaths:** **1,064**

**\*As of 5 Mar 02**

# *Human Error*

**FY97-02\***

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No. of Class-A Mishaps	Human Error HE 84% Non-HE 16%
Navy/Marine Aviation* <i>140 of 166</i>	
Navy Afloat <i>41 of 50</i>	HE 82% Non-HE 18%
Navy Operational Shore <i>36 of 48</i>	HE 75% Non-HE 25%
Navy PMV <i>293 of 346</i>	HE 85% Non-HE 15%

\*As of 5 Mar 02



# Class-A Flight Mishap Rates\*

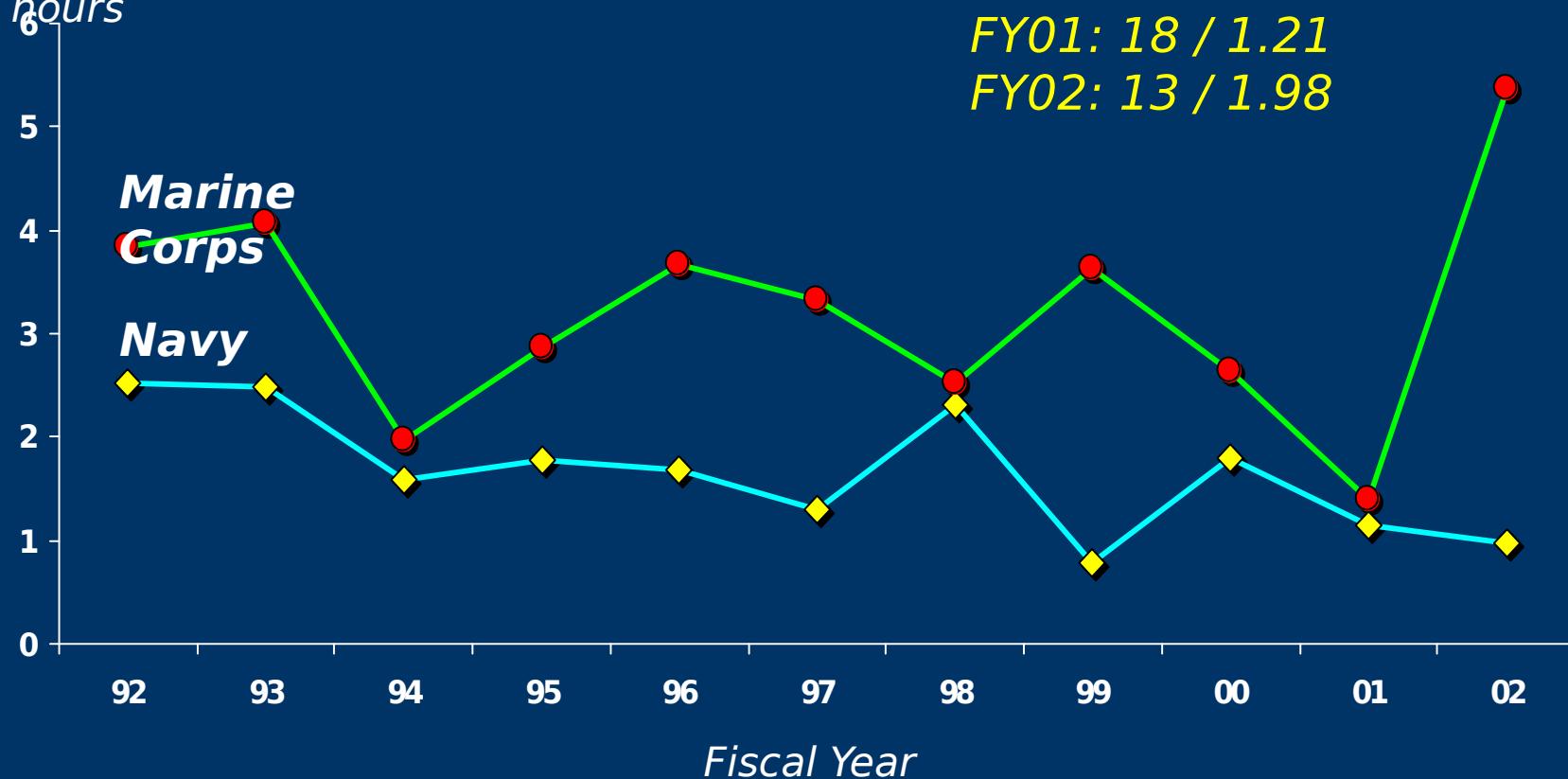
Navy and Marine Corps



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Mishap rates per 100,000 flight hours



\*As of 5 Mar 02

## TRENDS

### Mishap

### Investigations

- Human error (aircrew):  
*Leading causal factor*
  - Skill-based errors
  - CRM failures
  - Violations

### Surveys

- Manning/inexperience
- Training quality/quantity
- NATOPS/technical pubs
- Cannibalization rates up

## TAKEAWAYS

- Fund state-of-art simulators and data centric systems
- Improve training
- Increase proficiency
- Institutionalize ORM
- Enforce standards
- Increase checks and balances



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# Navy Afloat Class-A Mishap Rates\*

*Mishap rates per 100 ships per year*



\*As of 5 Mar 02

## TRENDS

### Mishap Investigations

- Inadequate supervision
- Poor PMS
- Poor CRM
- Poor situational awareness
- Complacency

### Surveys

- Poor leadership, supervision
- Poor PMS
- Weak self-assessment capability
- Ineffective training

## TAKEAWAYS

- Leadership commitment
- Enforce standards
- Increase checks and balances
- Institutionalize ORM
- Demand risk assessments
- Improve/standardize navigation technology
- Increase simulator training



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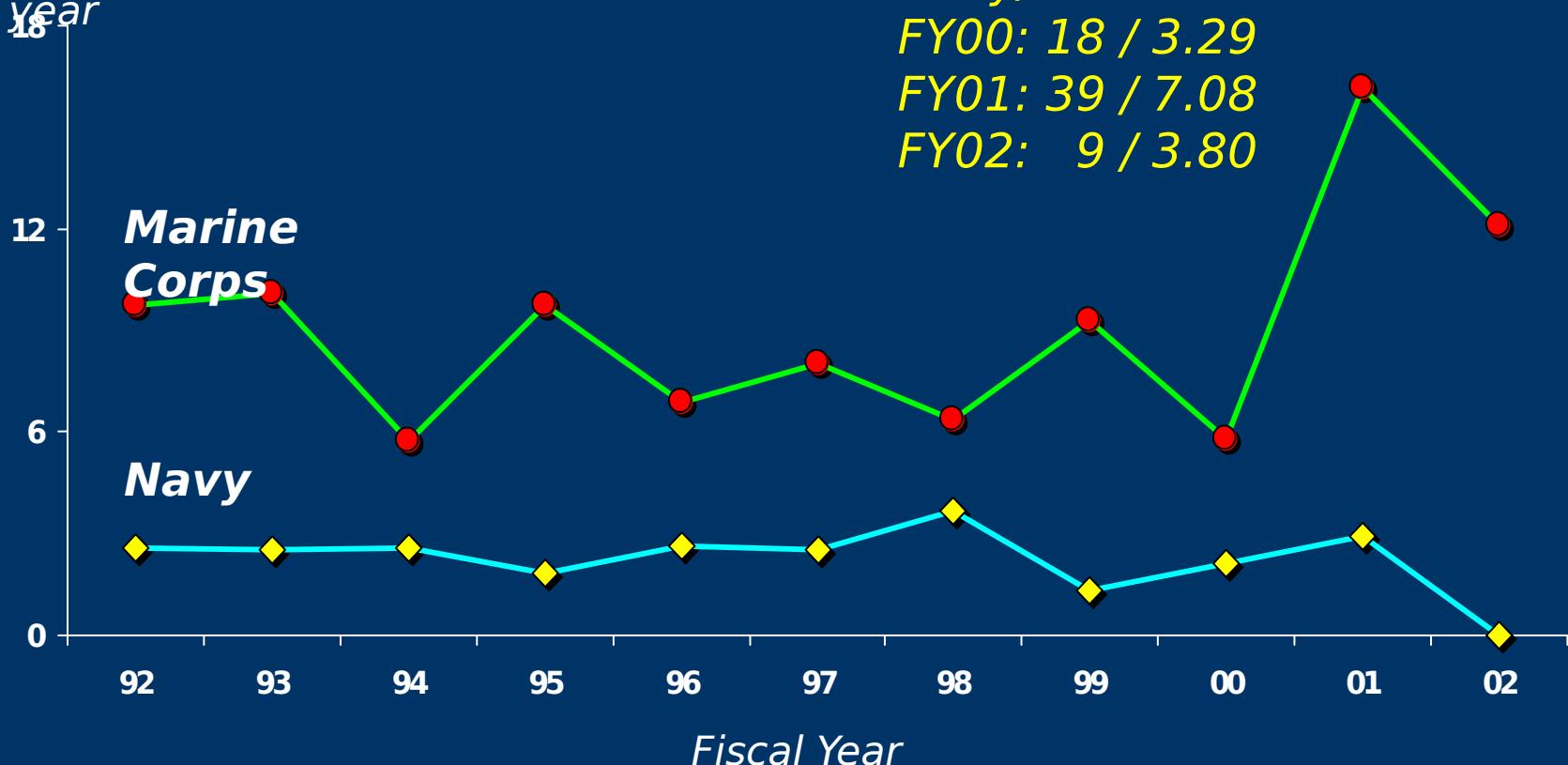


# Class-A Operational Ashore Mishap Rates\*

Navy and Marine Corps

Mishap rates per 100,000 personnel per year

Navy/Marine  
FY00: 18 / 3.29  
FY01: 39 / 7.08  
FY02: 9 / 3.80



\*As of 5 Mar 02



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# Shore

## TRENDS

### Mishap Investigations

- Lack of headwork
- Inadequate supervision
- Inexperience
- Complacency
- Alcohol involvement
- Non-use of PPE

### Surveys

- Ineffective oversight
- Inadequate training
- Lack of ORM
- Poor command culture

## TAKEAWAYS

- Continued leadership commitment
- Enforce standards
- Improve awareness
- Demand risk assessments
- Improve safety manning/placement
- Increase checks and balances
- Institutionalize ORM
- Improve training





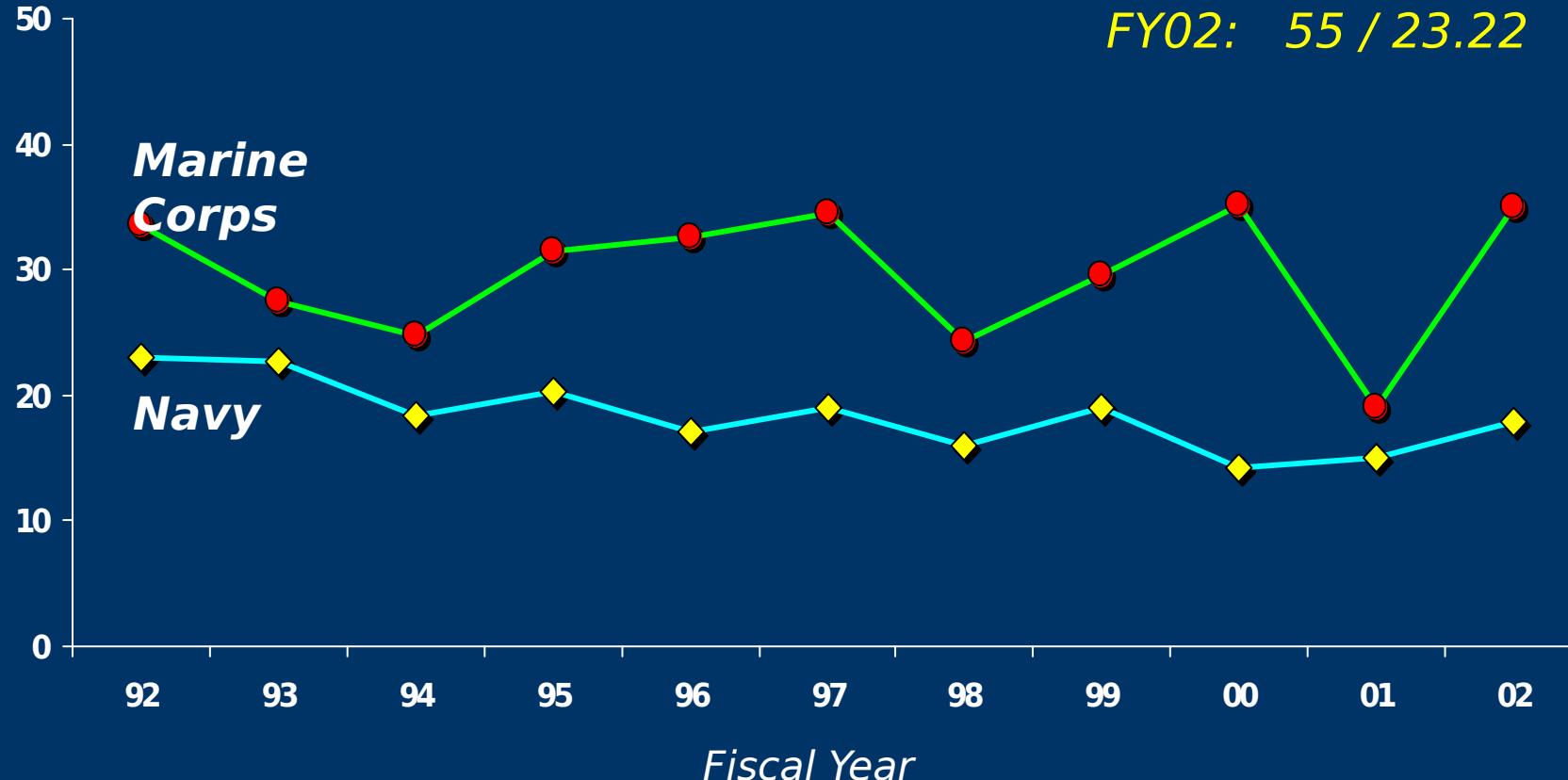
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# PMV Fatality Rates\*

## Navy and Marine Corps

Mishap rates per 100,000 personnel per year

Navy/Marine  
FY00: 114 / 20.86  
FY01: 90 / 16.34  
FY02: 55 / 23.22



\*As of 5 Mar 02



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# Perspective

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*“In 1968, we lost 99 American Sailors in USS Scorpion, which we think of as a national disaster; while we lost 103 Sailors and Marines in PMV accidents in 1998, and call it our ‘best year’!”*



# *PMV Fatalities by Community*

**FY97-02\***

Afloat	Total:	346 Sailors
168		273 Marines
Shore		USMC
141		273
Navy		
Aviation		
37		

**\*As of 5 Mar 02**



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# Fatal Factors in Traffic Deaths

**Navy and Marine Corps, FY99-01**

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**FY99-01 Deaths:**

**326**

*FY99: 122*

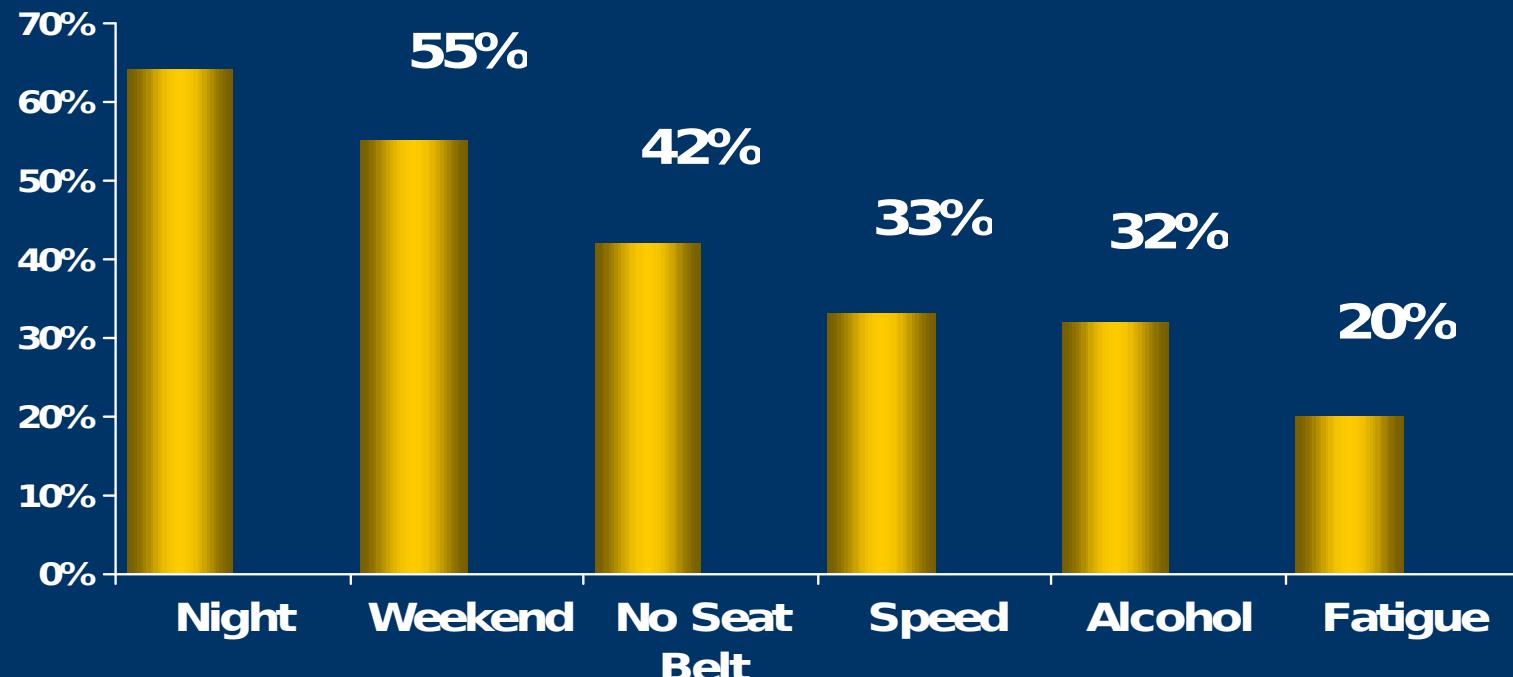
*FY00: 114*

*FY01: 90  
64%*

**FY02 Deaths:**

**55**

*As of 5 Mar 02*



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# Present Efforts



Naval Safety Center Norfolk, VA

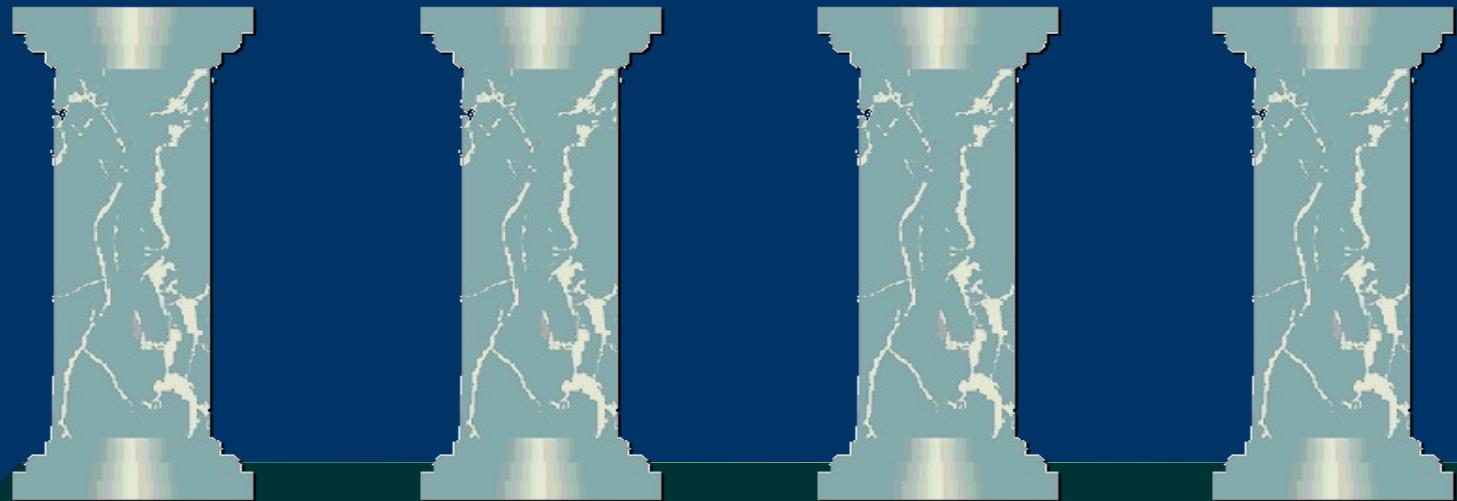


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# Traffic Safety

Risk

**Education   Management   Training   Enforcement**



**Leadership  
Commitment**



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Naval Safety Center Norfolk, VA



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# Questions?

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